1. Record Nr. UNINA9910370253303321

Autore	Bhunia Asoke Kumar
Titolo	Advanced Optimization and Operations Research / / by Asoke Kumar Bhunia, Laxminarayan Sahoo, Ali Akbar Shaikh
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2019
ISBN	981-329-967-3
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XVI, 621 p. 88 illus.)
Collana	Springer Optimization and Its Applications, , 1931-6836 ; ; 153
Disciplina	658.4034
Soggetti	Operations research Management science Mathematical optimization Calculus of variations Operations Research, Management Science Calculus of Variations and Optimization Continuous Optimization Discrete Optimization Operations Research and Decision Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Mathematical Preliminaries -- 2. Introduction of OR -- 3. Revised Simplex Method -- 4. Dual Simplex Method -- 5. Bounded Variable Technique -- 6. Post-Optimality Analysis in Linear Programming Problem -- 7. Integer Programming -- 8. Convex Function -- 9. Basics of Unconstrained Optimization. 10. Constrained Optimization with Equality Constraints -- 11. Constrained Optimization with Inequality Constraints -- 12. Quadratic Programming -- 13. Inventory Control Theory -- 14. Project Management -- 15. Queueing Theory -- 16. Flow in Networks -- 17. Theory of Game.
Sommario/riassunto	This textbook provides students with fundamentals and advanced concepts in optimization and operations research. It gives an overview of the historical perspective of operations research and explains its principal characteristics, tools, and applications. The wide range of topics covered includes convex and concave functions, simplex

methods, post optimality analysis of linear programming problems, constrained and unconstrained optimization, game theory, queueing theory, and related topics. The text also elaborates on project management, including the importance of critical path analysis, PERT and CPM techniques. This textbook is ideal for any discipline with one or more courses in optimization and operations research; it may also provide a solid reference for researchers and practitioners in operations research.